TECHNOLOGY NEEDS/OPPORTUNITIES STATEMENT
DENSE CONCRETE DEMOLITION FOR THE INTERIM SAFE STORAGE PROJECT

Identification No.: RL-DD076
Date: August 2001
Program: Decontamination and Decommissioning
OPS Office/Site: Richland Operations Office/ Hanford Site
PBS No.: RL-RC01
Waste Stream: LLW Debris (ER-05, risk = 4)
TSD Title: N/A
Waste Management Unit (if applicable): N/A
Facility: Facilities in the Reactor Areas

Priority Rating: This entry addresses the Accelerated Cleanup: Paths to Closure (ACPC) Priority:

____ 1. Critical to the success of the ACPC
_X_ 2. Provides substantial benefit to ACPC projects (e.g., moderate to high lifecycle cost savings or risk reduction, increased likelihood of compliance, increased assurance to avoid schedule delays)
____ 3. Provides opportunities for significant, but lower cost savings or risk reduction, and may reduce uncertainty in ACPC project success.

Need Title: Dense concrete demolition for the Interim Safe Storage Project

Need/Opportunity Category: *Technology opportunity* - the project desires an alternative to the current or planned baseline technology/process (i.e., a baseline exists but can be improved).

Need Description: An improved method is needed to demolish dense, reinforced, thick concrete.

Schedule Requirements:
Earliest Date Required: 10/3/2001
Latest Date Required: 9/30/2009

Problem Description: Dense, reinforced, thick concrete is very difficult and expensive to demolish and size reduce for disposal.

Benefit to the Project Baseline of Filling Need: Reduced cost (manpower, equipment repair/replacement) for demolishing dense, reinforced, thick concrete.

Functional Performance Requirements: The method must be faster and/or less costly than the baseline, and not increase the noise/dust/spread of contamination issues of the baseline methods.

WBS No.	***TIP No***.
1.4.03.1.1	TIP-0010

Relevant PBS Milestone: PBS-MC-031

Justification for Need:

Technical: Current techniques for demolishing dense concrete are expensive and very hard on equipment. Equipment failure causes both schedule delays and increased cost.

Regulatory: N/A

Environmental Safety and Health: N/A

Cost Savings Potential (Mortgage Reduction): Unknown.

Cultural/Stakeholder Concerns: N/A

Other: None identified.

Current Baseline Technology: Backhoes and excavators equipped with shears, hammers, pulverizers and standard demolition equipment are the current baseline.

End User: Environmental Restoration Project

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